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AU9714354

(51) Internationale Patentklassifikation 6: A61C 9/00		A1	(11) Internationale Veröffentlichungsnummer: WO 97/28755
			(43) Internationales Veröffentlichungsdatum: 14. August 1997 (14.08.97)
(21) Internationales Aktenzeichen: PCT/CH97/00031		(81) Bestimmungsstaaten: AU, BR, CA, CN, IL, JP, KR, US, europäisches Patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(22) Internationales Anmeldedatum: 31. Januar 1997 (31.01.97)			
(30) Prioritätsdaten: 326/96 8. Februar 1996 (08.02.96) CH		Veröffentlicht Mit internationalem Recherchenbericht.	
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(54) Title: IMPRESSION SYSTEM FOR AN END OF AN IMPLANT PROJECTING FROM A HUMAN TISSUE STRUCTURE

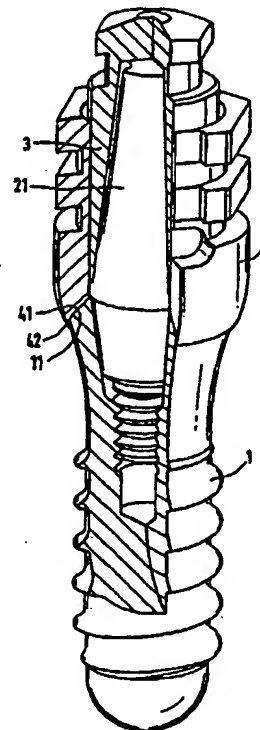
(54) Bezeichnung: ABDRUCKSYSTEM FÜR EINEN AUS DER MENSCHLICHEN GEWEBESTRUKTUR AUSTRETENDEN IM-
PLANTATABSCHLUSS

(57) Abstract

The impression system comprises an impression cap (4) for transferring an end of an implant inserted in the human body and including any superstructures projecting from a human tissue structure to a master model. The outside of the outwardly directed end of the implant has an undercut shape and the impression cap (4) is shaped to engage therewith. The undercut is formed either by an implant shape tapering in a trumpet shape towards the implant end or by a recess near the implant termination. The impression system greatly simplifies taking the impression and producing the master model. In addition, the transfer of the patient's real geometrical situation to the master model is more precise.

(57) Zusammenfassung

Das Abdrucksystem beinhaltet eine Abdruckkappe (4) zur Übertragung eines aus einer menschlichen Gewebestruktur austretenden Abschlusses eines in den Humankörper eingesetzten Implantats (1), inklusive möglicher Aufbauten, auf ein Meistermodell. Das nach aussen gerichtete Implantatende weist an seiner Aussenseite eine hinterschnittene Kontur auf, und die Abdruckkappe (4) besitzt eine zur hinterschnittenen Kontur komplementäre, darin eingreifende Geometrie. Die hinterschnittene Kontur wird entweder durch eine zum Implantatlager hin sich trompetenförmig verjüngende Implantatgeometrie oder durch eine Aussparung, nahe dem Implantatabschluss, gebildet. Mit dem Abdrucksystem werden die Abdrucknahme sowie die Meistermodellherstellung sehr vereinfacht. Ferner kann die Übertragung der realen, am Patienten vorhandenen, geometrischen Situation auf das Meistermodell präziser erfolgen.



(12) PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. AU 199714354 B2
(10) Patent No. 708386

(54) Title
Impression system for an end of an implant projecting from a human tissue structure

(51)⁶ International Patent Classification(s)
A61C 009/00

(21) Application No: 199714354

(22) Application Date: 1997.01.31

(87) WIPO No: WO97/28755

(30) Priority Data

(31) Number	(32) Date	(33) Country
326/96	1996.02.08	CH

(43) Publication Date : 1997.08.28

(43) Publication Journal Date : 1997.10.23

(44) Accepted Journal Date : 1999.08.05

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(56) Related Art
DE 4415670

1 / 10

Fig.1A

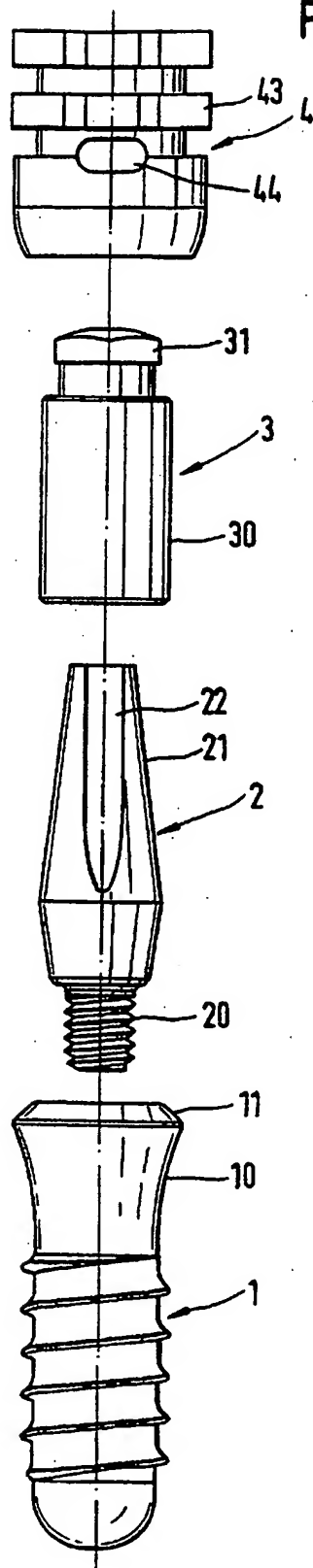


Fig.1B

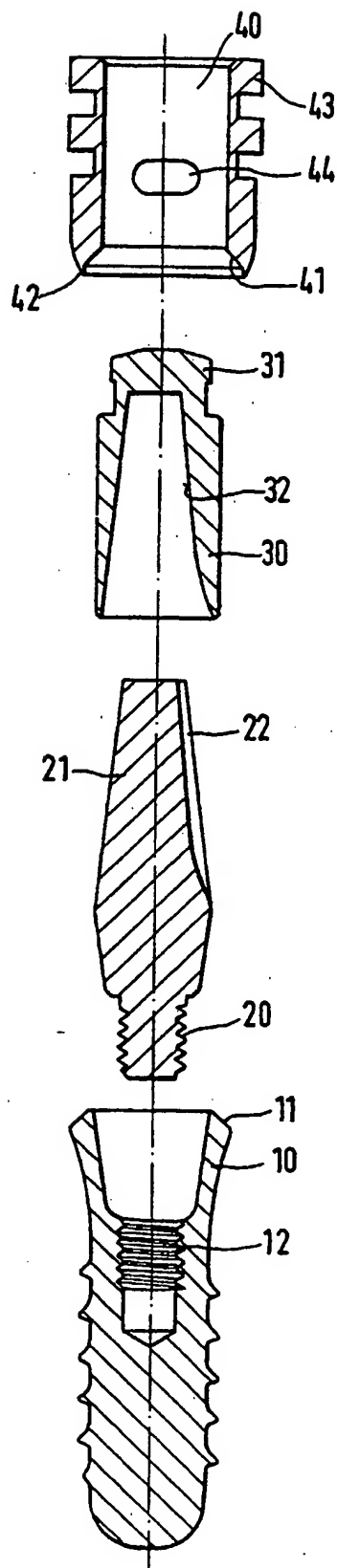


Fig.1C

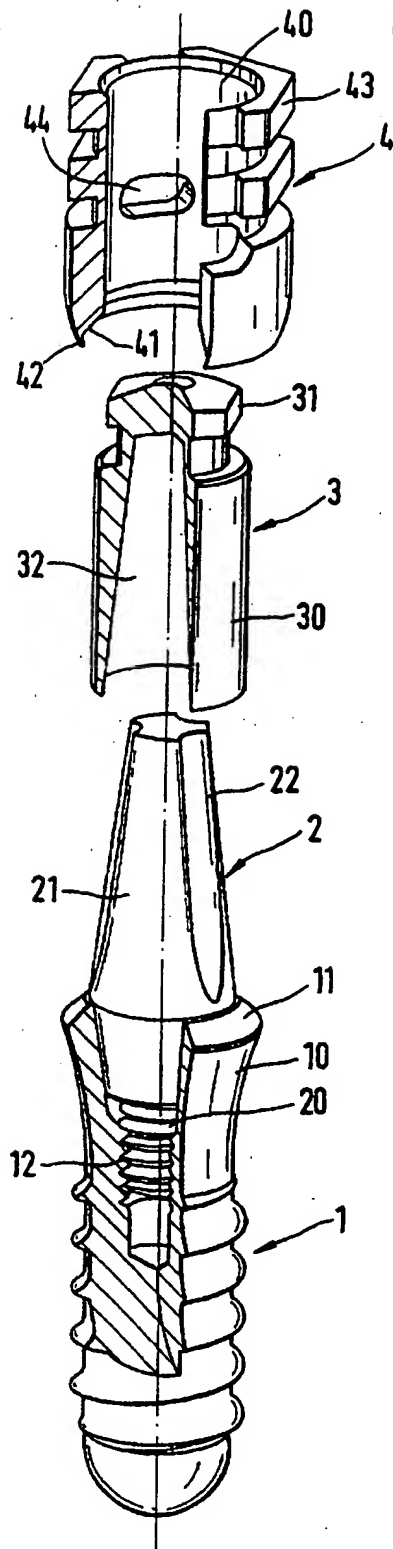
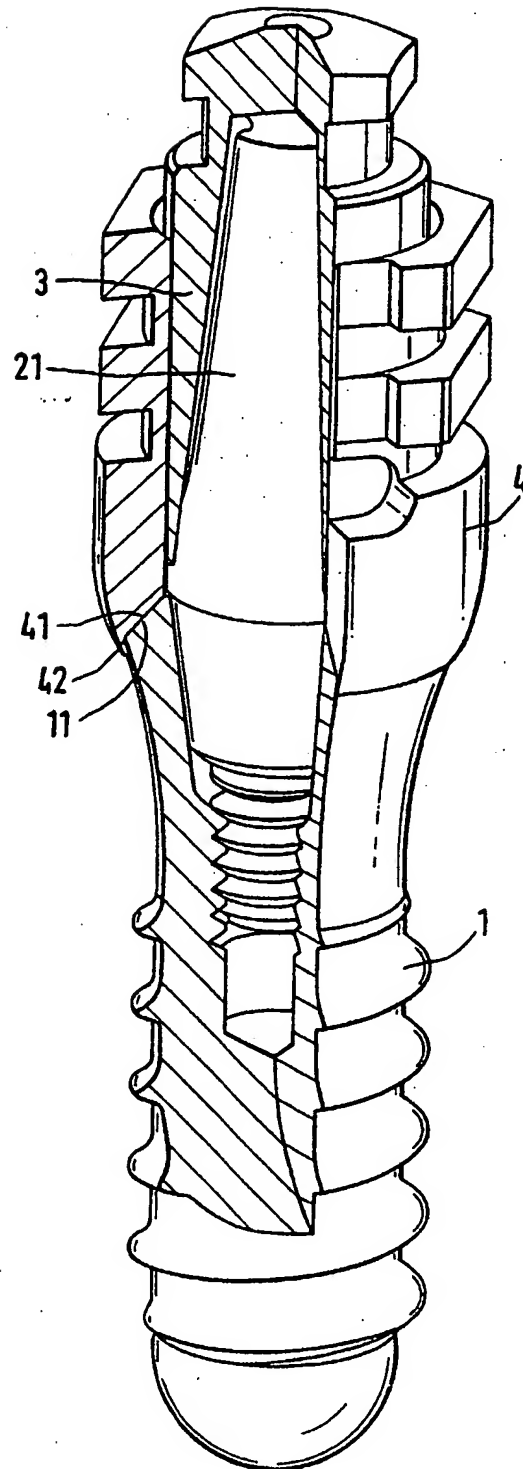


Fig.1D



3 / 10
Fig.1E

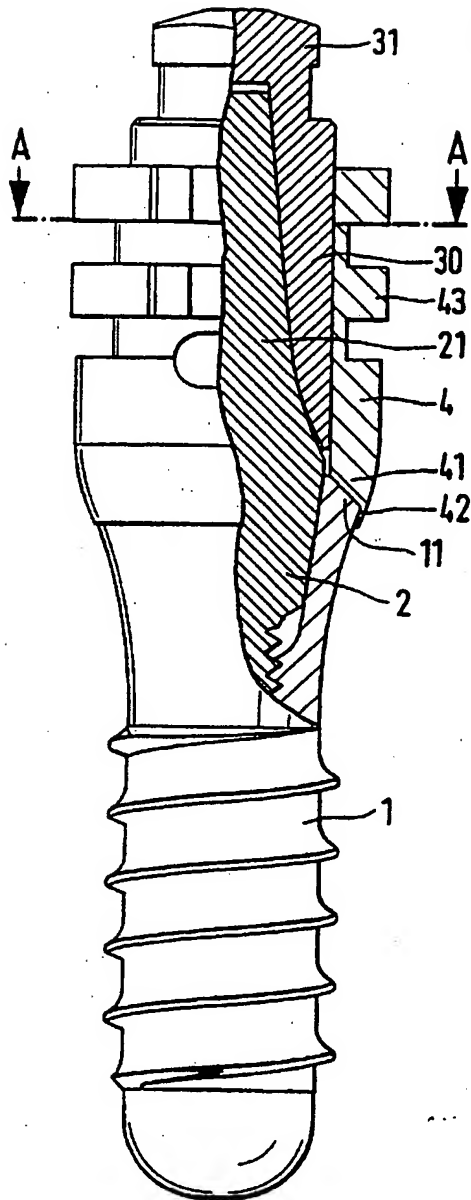


Fig.16

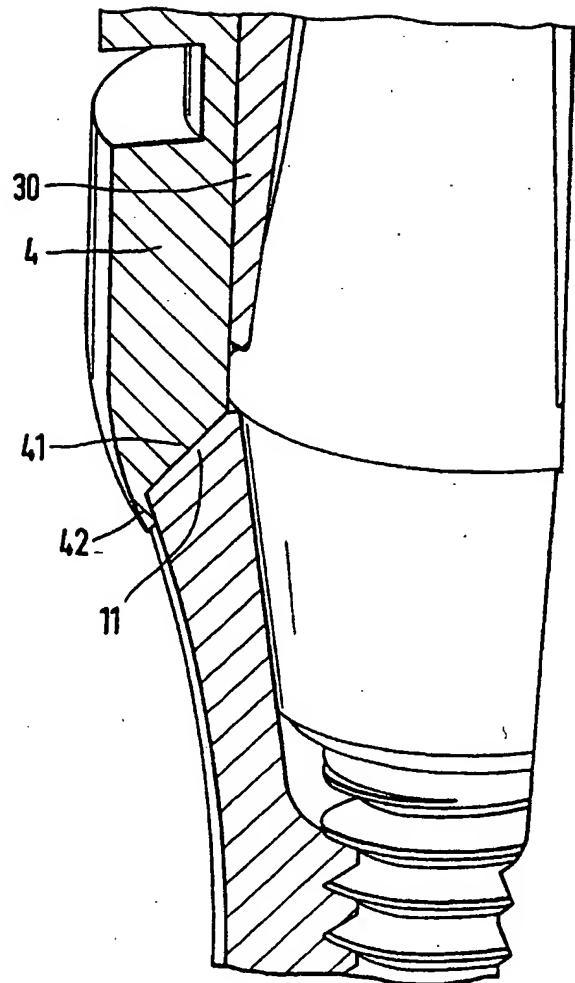
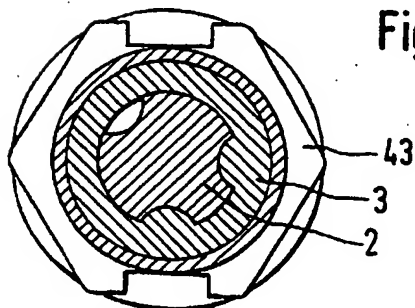


Fig.1F



4 / 10

Fig.2A

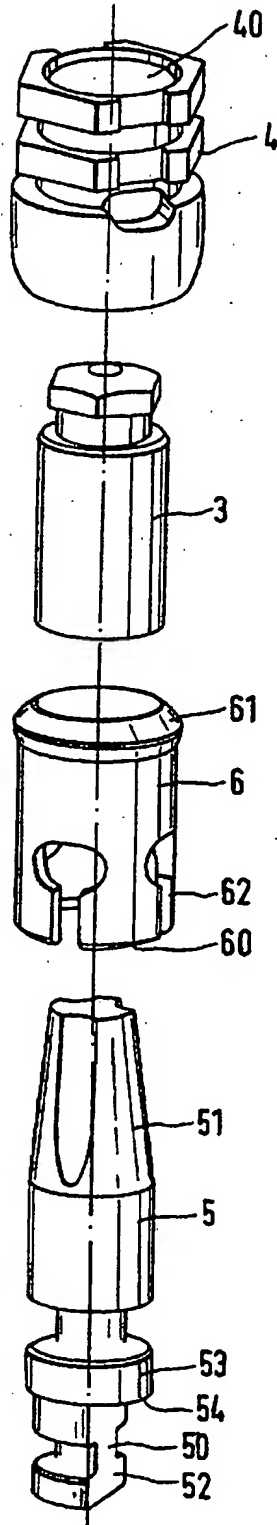


Fig.2B

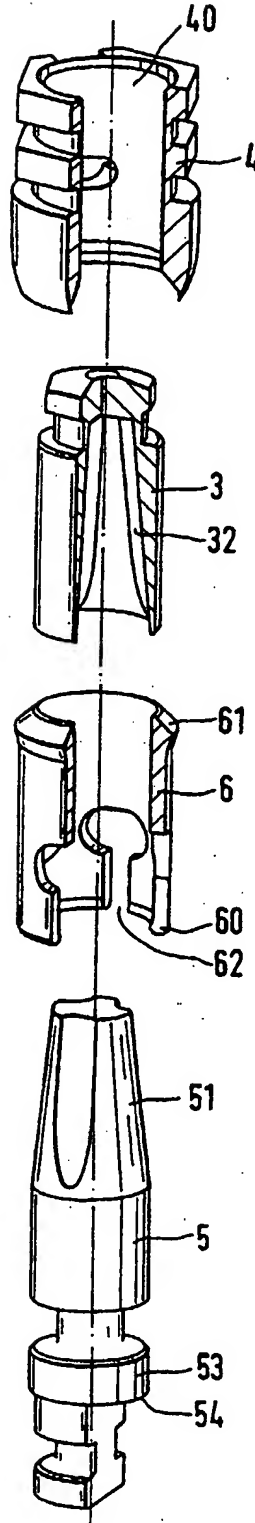


Fig.2C

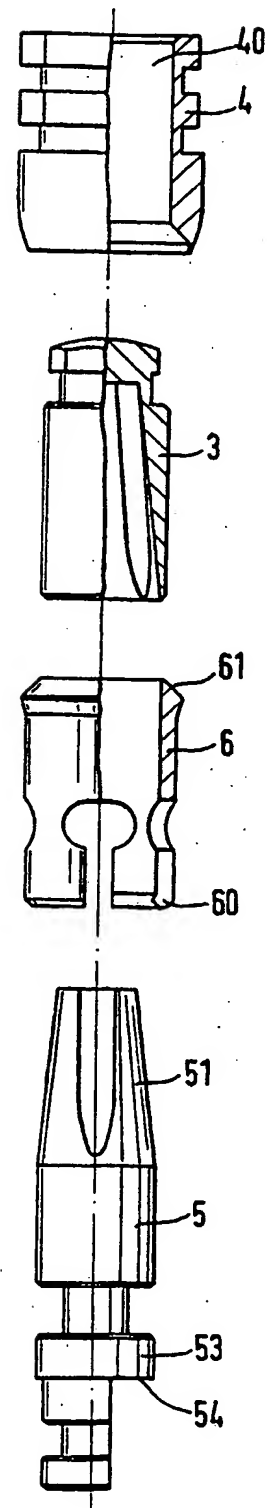


Fig.2D

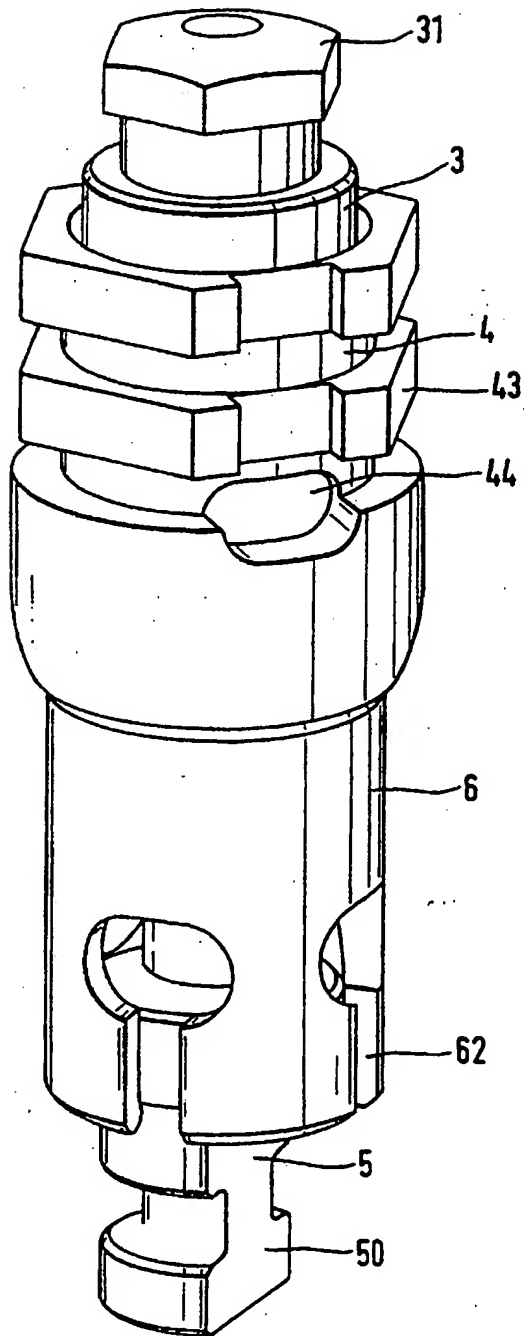


Fig.2E

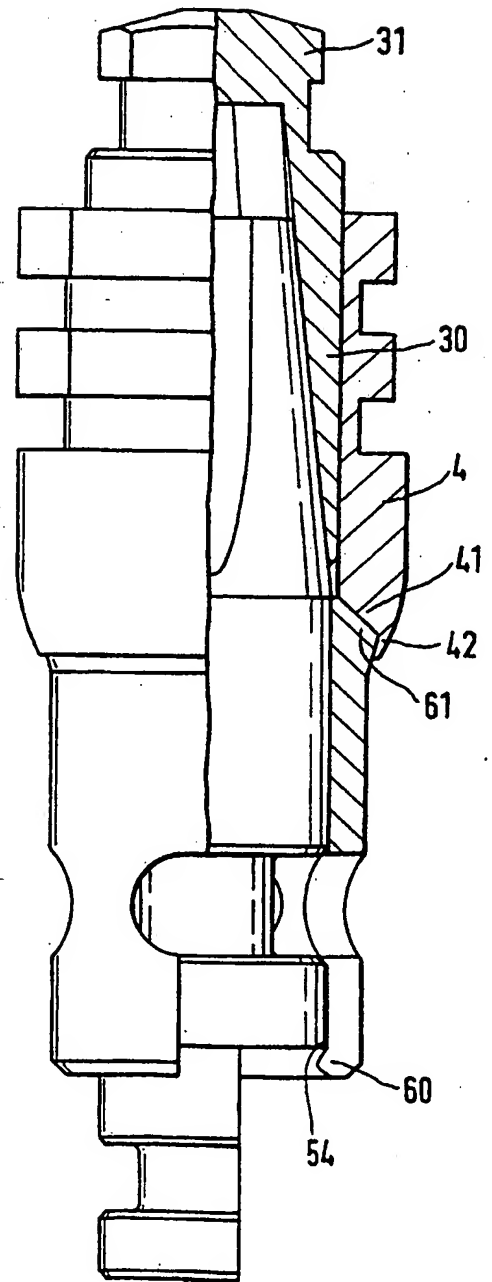


Fig.3A

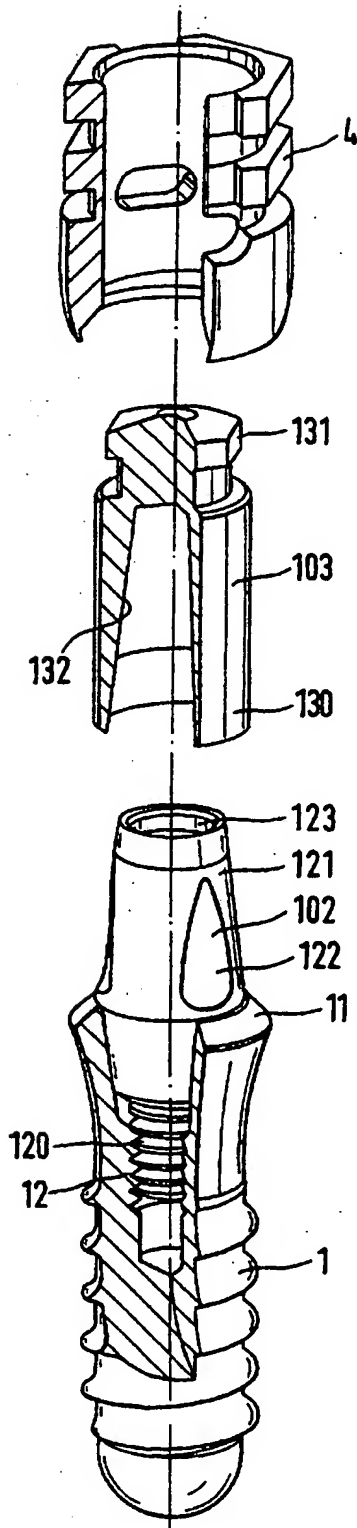
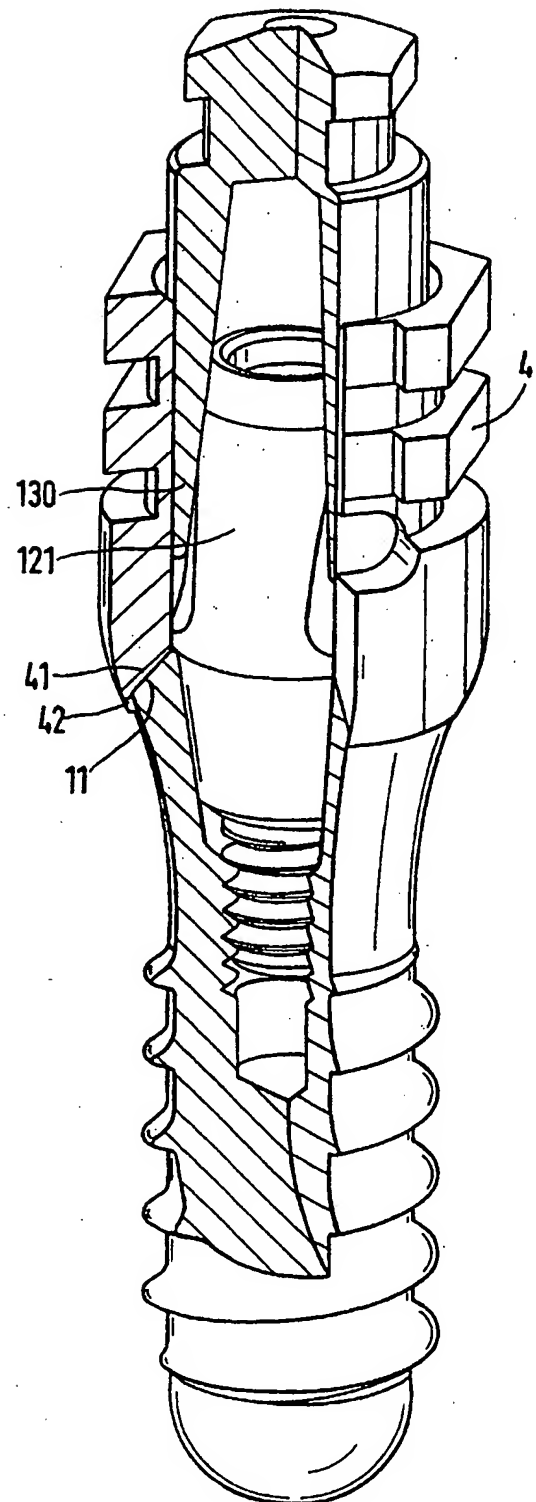


Fig.3B



7 / 10

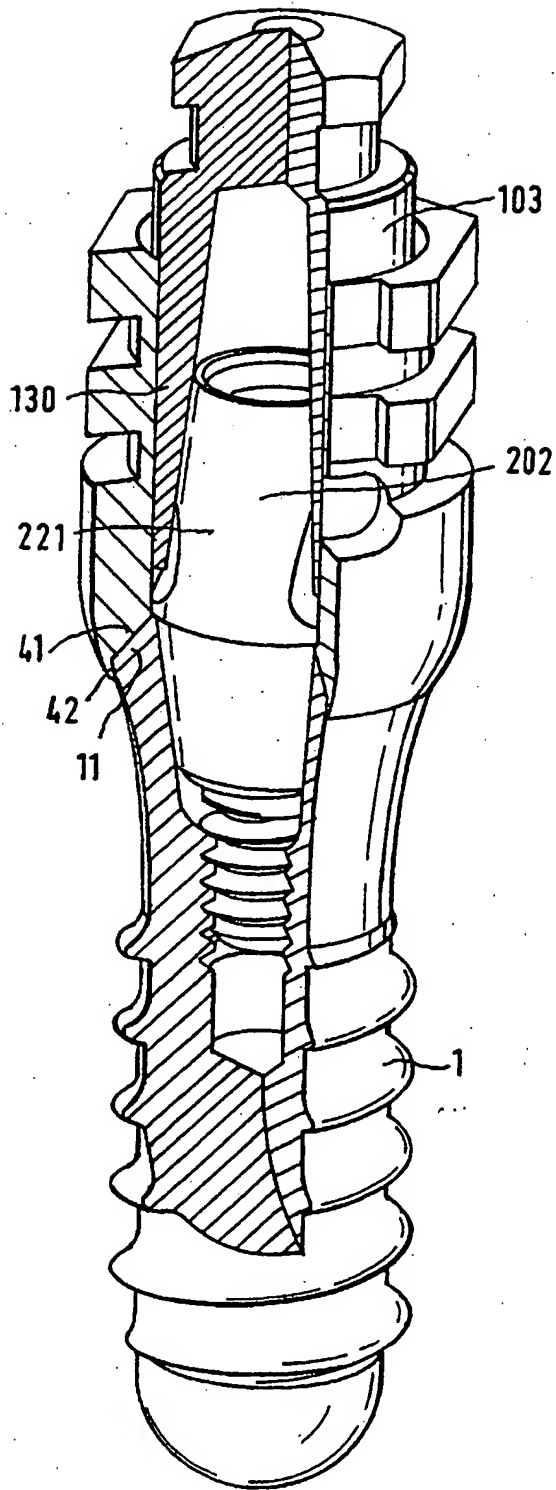


Fig. 3C

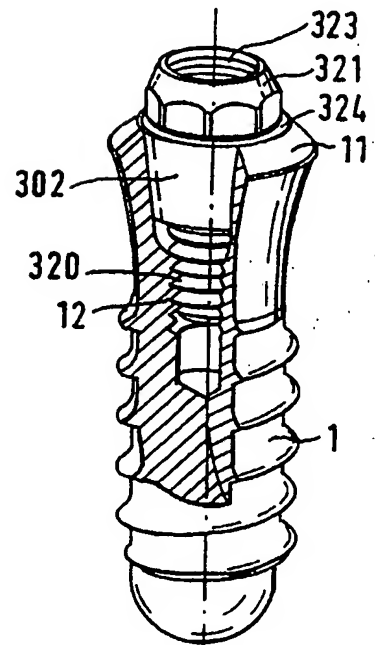
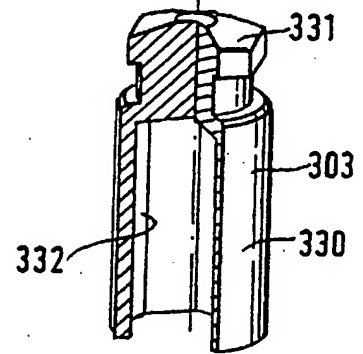
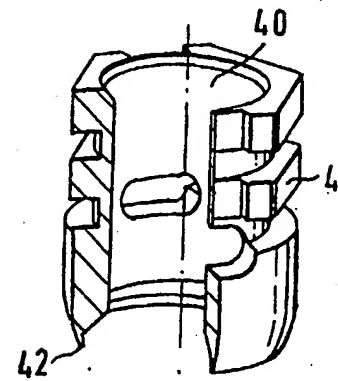


Fig. 4A

8 / 10

Fig. 4B

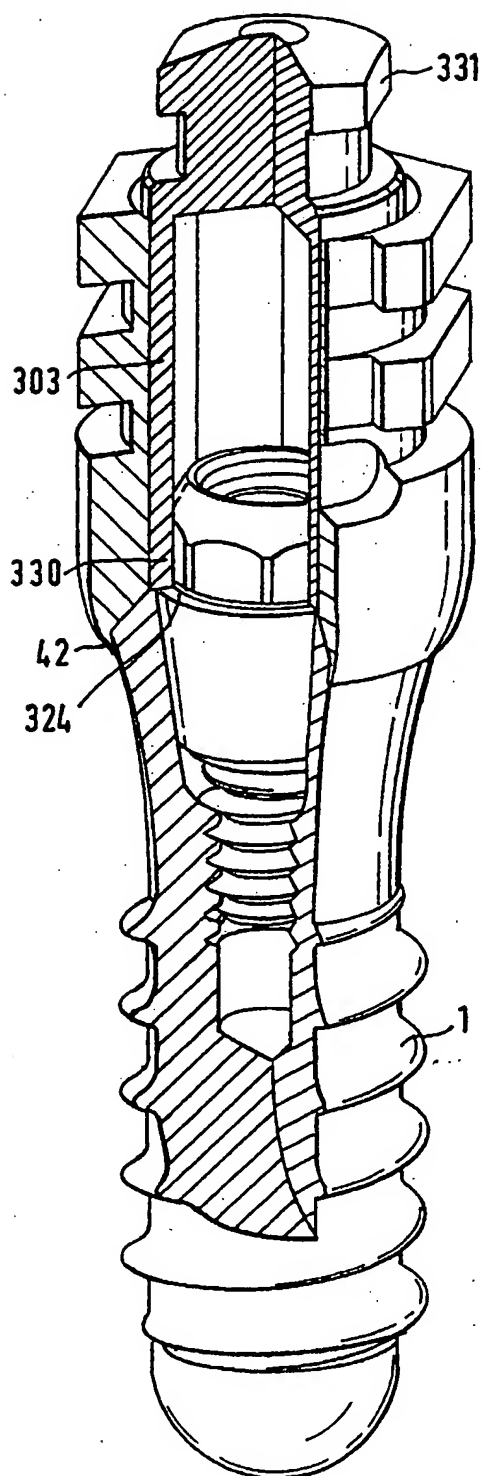


Fig. 4C

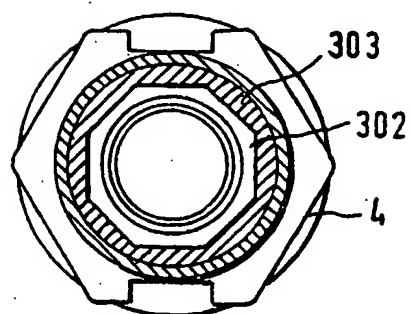
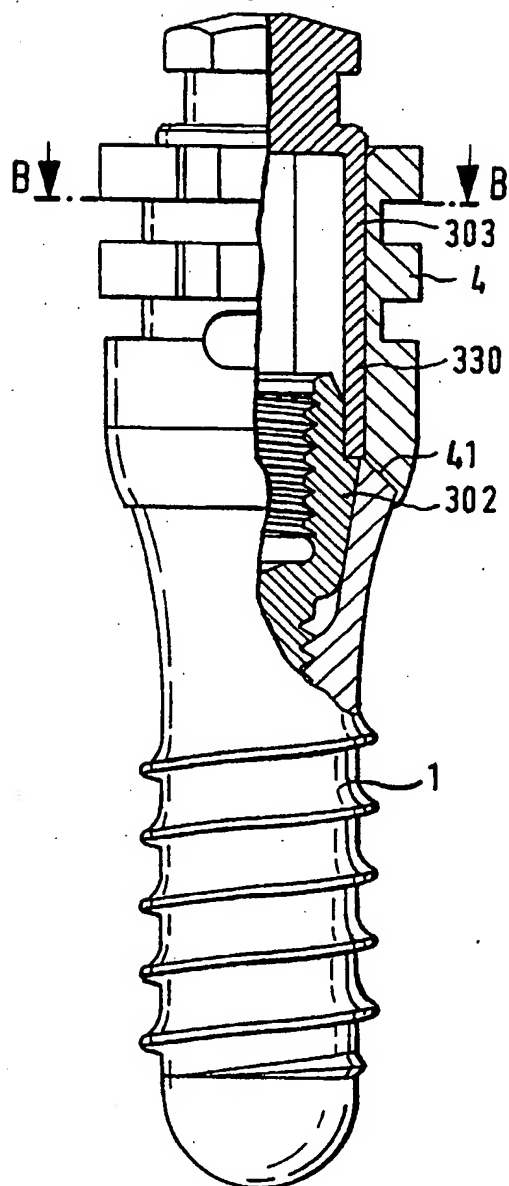


Fig. 4D

9 / 10

Fig.5A

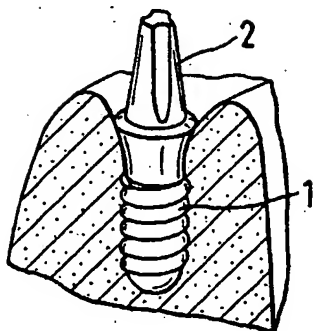


Fig.5B

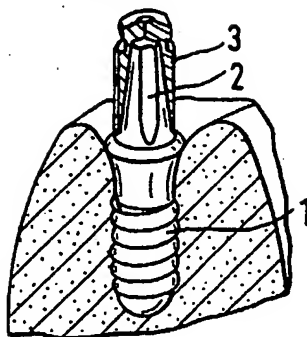


Fig.5C

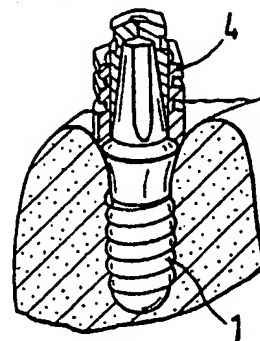


Fig.5D

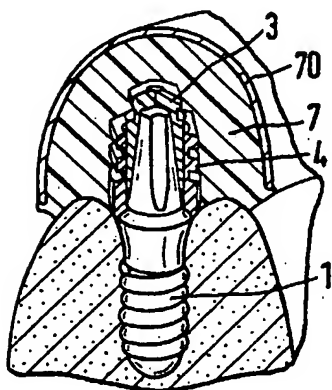


Fig.5E

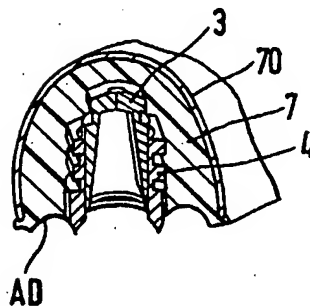


Fig. 5F

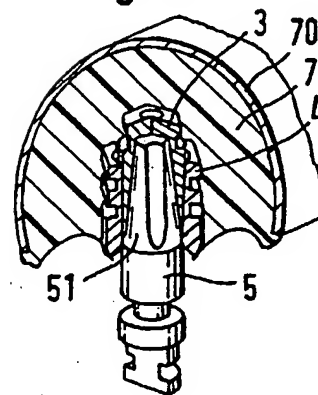


Fig.5G

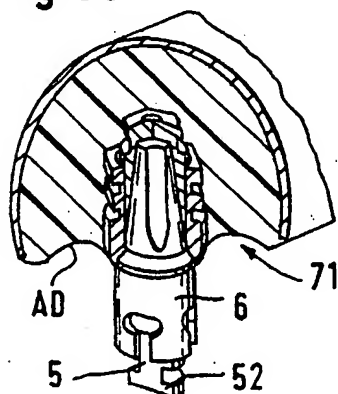
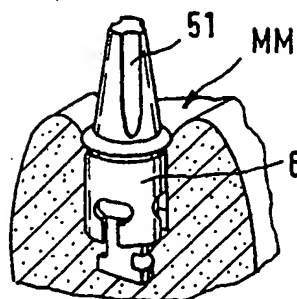


Fig. 5H



10 / 10

Fig. 6A

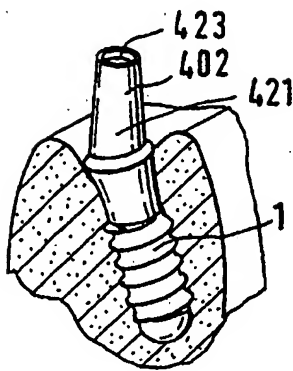


Fig. 6B

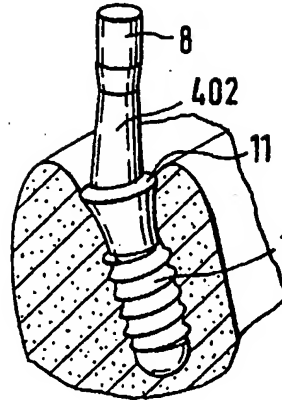


Fig. 6C

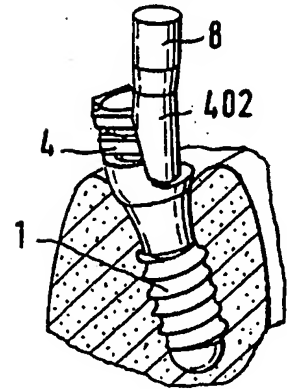


Fig. 6D

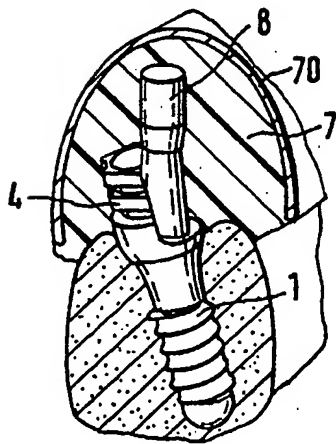


Fig. 6E

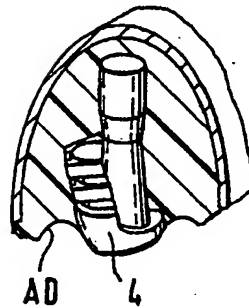


Fig. 6F

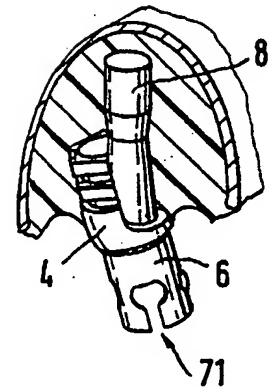


Fig. 6G

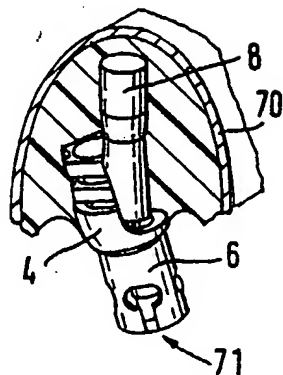
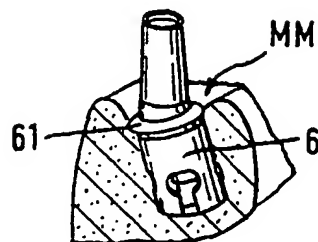


Fig. 6H



Impression System for an Implant End Protruding from the
Human Tissue Structure

Area of application of the Invention

5 The present invention relates to an impression system with an impression cap for an implant fitted in the human body in order to transfer the implant end protruding from the tissue structure, including possible superstructures on this implant end, to a master cast.

10

Prior art

The following discussion refers in the first instance to the example of dental implants. For taking an impression of the situation in the patient's mouth and for transferring the impression obtained to a master cast, on which the tooth replacement is then modelled, a number of elements have hitherto been used. The work steps that have had to be performed to date, and the elements used in these work steps, are dealt with in detail by SCHROEDER, A.; SUTTER, F.; BUSER, D.; KREKELER, G.: Orale Implantologie [Oral implantology], Georg Thieme Verlag Stuttgart, 2nd edition, 1994, page 202 et seq. On the one hand, the assembling of the elements in the patient's mouth, particularly in the area of the molars, is problematic because of the resulting overall height of the elements, especially if a screwing instrument has to be used as well. Moreover, the work procedures are demanding for the patient, and they are time-consuming as regards impression-taking and production of the master cast. In addition to this, inaccuracies occur.

30



The difficulties result primarily from the fact that the impression cap does not hold itself on the implant fitted in the mouth or on the manipulation implant to be used subsequently in the production of the master cast. DE 44 15 670

5 A1 discloses an impression cap which, at the open end facing the implant, has resilient flaps which, when applied, engage over the shoulder of the conical superstructure, the latter being fitted into the implant. The impression cap described there cannot therefore be used for taking an impression of
10 the implant end protruding from the gingiva and projecting into the mouth, but instead only for taking an impression of the outer contour of the superstructure while the implant is positioned below the gingiva.

15 Object of the invention

In view of the hitherto costly and in some cases inaccurate impression-taking and production of the master cast, and in view of the fact that the impression caps can only be used conditionally, the invention is based on the problem of
20 creating an impression system with an impression cap which is suitable for transferring, to a master cast, an implant end, on which a superstructure can be located, protruding from the human tissue structure. Here, the impression cap, embedded in the impression compound present in the
25 impression tray, must be able to be removed from the fitted implant, and it must be able to receive the manipulation implant equally securely. It must be possible for the impression cap to be used for the most varied types of implants, even when very different abutments are fitted
30 therein, for example abutments which are straight or angled,



conical or with a polygonal head, solid or with an internal thread.

Nature of the invention

- 5 The present invention provides an impression system with an impression cap for transferring an internal geometrical profile of a patient's mouth formed by an outwardly directed end of a dental implant and a human tissue structure surrounding said implant end, to a master cast, the implant is fitted into a human jawbone and the implant end is protruding from said human tissue structure, where
- 10 a) the implant end has an undercut contour on its outside, characterized in that
b) the impression cap has a geometry which complements the undercut contour and engages therein. In an embodiment of the invention a superstructure projects from the end of the dental implant.
- 15 Preferably the undercut contour is formed either by an implant geometry tapering in a trumpet shape towards an implant bed, or by a recess near the implant end.
- The engaging geometry provided on the impression cap is advantageously a snap element in the form of a circular lip, or it is formed by individual gripping members.
- 20 In a special embodiment, the implant end is trumpet-shaped, and it has an angled shoulder portion in the form of an implant shoulder in the area of greatest diameter. The cap shoulder provided on the impression cap is supported at least partially on the implant shoulder.
- 25 On the outer circumference, the impression cap can have retention plates generated by radial grooving and/or radially directed apertures. The impression cap is closed on one side, or it has an axial channel passage. Either the channel passage of the impression cap remains free, or the abutment of a superstructure and/or a slide sleeve can be fitted therein. The slide sleeve has an inner contour



complementing the abutment, and at least the lower edge of the sleeve section of the slide sleeve sits between the abutment and the inner wall of the impression cap resting on the implant shoulder. For transferring the impression
5 obtained from the original situation to a master cast, prefabricated parts analogous to this original situation are provided.

The implant shoulder is embodied by a manipulation shoulder
10 sleeve with an upper manipulation shoulder and with a holding mechanism, possibly in the form of a locking edge, and the manipulation shoulder is gripped by the snap element of the impression cap. For transferring the impression obtained from the original situation to a master cast, an
15 abutment of a manipulation implant is provided which can be pushed into the impression cap and slide sleeve remaining in the impression obtained. In terms of its outer contour, this push-in abutment is identical in shape to the abutment actually used in the original situation.

20
Underneath the abutment, the manipulation implant is advantageously provided with a continuation having retention plates and a fixing member complementing the holding mechanism, the holding mechanism of the manipulation shoulder sleeve
25 cooperating with the fixing member of the manipulation implant.

By virtue of the invention, an impression system with an impression cap is now available by means of which taking an impression of an implant end protruding from the tissue
30 structure of a patient, with a possible superstructure, and the production of a master cast are greatly simplified. In



addition, the transfer of the actual geometrical situation on the patient to the master cast is now more precise.

Brief description of the attached drawings

- 5 Figure 1A: a full screw implant with a solid conical
 superstructure, a slide sleeve and the
 impression cap in an exploded view;
 Figure 1B: the view according to Figure 1A in vertical
 section;
10 Figure 1C: the view according to Figure 1A with screwed-
 in solid conical superstructure in partial
 section;
 Figure 1D: the elements according to Figure 1A in the
 assembled state, as partial section;
15 Figure 1E: the view according to Figure 1D in another
 partial section;
 Figure 1F: the view according to Figure 1E as section
 along the line A-A;
 Figure 1G: as detail, the area with the snap element
20 engaging around the implant shoulder, in
 partial section;
 Figure 2A: a manipulation implant with solid conical
 part, a manipulation shoulder sleeve, a slide
25 sleeve and the impression cap in an exploded
 view;
 Figure 2B: the view according to Figure 2A in vertical
 partial section;
 Figure 2C: the view according to Figure 2B in another
30 vertical partial section;



- Figure 2D: the elements according to Figure 2A in the assembled state;
- Figure 2E: the view according to Figure 2D in vertical partial section;
- 5 Figure 3A: a full screw implant with a conical superstructure (6°) with internal thread, a slide sleeve and the impression cap in an exploded view;
- 10 Figure 3B: the elements according to Figure 3A in the assembled state, in vertical partial section;
- Figure 3C: the view according to Figure 3B with a conical superstructure (8°);
- 15 Figure 4A: a full screw implant with a polygonal superstructure, a slide sleeve and the impression cap as an exploded view in vertical partial section;
- Figure 4B: the elements according to Figure 4A in the assembled state, in vertical partial section;
- 20 Figure 4C: the view according to Figure 4B in another vertical partial section;
- Figure 4D: the view according to Figure 4C as section along the line B-B;
- 25 Figure 5A: mouth situation with full screw implant sitting in the jaw bone, and solid conical superstructure fitted;
- Figure 5B: the view according to Figure 5A with slide sleeve pushed on;
- 30 Figure 5C: the view according to Figure 5B with impression cap pushed on;



- Figure 5D: the view according to Figure 5C with impression tray applied;
- Figure 5E: the impression obtained according to Figure 5D;
- 5 Figure 5F: the solid conical superstructure applied on the impression according to Figure 5E;
- Figure 5G: the view according to Figure 5F with manipulation shoulder sleeve attached;
- Figure 5H: the view according to Figure 5G with
10 impression tray removed;
- Figure 6A: the view according to Figure 5A with angled conical superstructure;
- Figure 6B: the view according to Figure 6A with
15 impression cylinder screwed on;
- Figure 6C: the view according to Figure 6B with laterally open impression cap pushed on;
- Figure 6D: the view according to Figure 6C with impression tray applied;
- 20 Figure 6E: the impression according to Figure 6D:
- Figure 6F: the view according to Figure 6E with manipulation shoulder sleeve attached;
- Figure 6G: the view according to Figure 6F with filled impression cap and
- 25 Figure 6H: the view according to Figure 6G as finished master cast.

Illustrative embodiments

A detailed description of illustrative embodiments of the
30 impression system according to the invention is given



hereinbelow with reference to the attached drawings, and possible modifications are discussed by way of conclusion.

The following statement applies to the whole of the description. If, for the purposes of clarity of the drawings, reference numbers are included in a figure but are not mentioned in the directly associated text of the description, then reference is made to their mention in preceding figure descriptions. In the interests of intelligibility, the repeated designation of components in succeeding figures is for the most part omitted, if it is clear from the drawings that the components concerned are "recurring" components.

Figures 1A to 1G

Without wishing to limit the invention thereto, the example further refers to the taking of an impression of an implant 1 fitted in the mouth of a patient, here a dental implant as a full screw. The implant 1 has an implant head 10 widening conically upwards, and an implant shoulder 11 narrowing conically upwards. A superstructure part, here a solid conical superstructure 2, is screwed into the implant 1 via its threaded part 20 into the internal threaded bore 12 of the implant 1. The abutment 21 of the solid conical superstructure 2 projecting above the implant shoulder 11 has several vertically extending grooves 22 on the outside. Thus far, the parts are known per se.

For taking an impression, use is made of a slide sleeve 3 which is divided into a sleeve section 30 open at the bottom, and a closed end-piece 31 which ends at the top. The



cylindrical sleeve section 30 is smooth on the outside, while it has an inner contour 32 complementing the abutment 21 and can be pushed onto this abutment 21.

- 5 The impression cap 4 is in principle cylindrical and open at both ends. The channel passage 40 running through the impression cap 4 is complementary to the outer shape of the sleeve section 30, so that the impression cap 4 can be pushed in a sliding movement over the slide sleeve 3. At the
10 very bottom, the impression cap 4 has a cap shoulder 41 which is complementary to the implant shoulder 11. On the outside, the cap shoulder 41 is surrounded by an elastic snap element 42 directed inwards. On the outer circumference, the impression cap 4 is radially grooved, so that
15 several retention plates 43 are obtained. Apertures 44 may be present in the impression cap 4 for the escape of air and for the penetration or introduction of impression compound. The retention plates 43 have the function of anchoring in the impression compound, in order to prevent the displacement or twisting of the impression cap 4.
20

In the assembled state, the slide sleeve 3 pushed onto the abutment 21 reaches via the sleeve section 30 almost as far as the implant shoulder 11. The impression cap 4 receives
25 the sleeve section 30 in its channel passage 40, with the end-piece 31 projecting upwards from the impression cap 4. The inner contour 32 of the slide sleeve 3 bears snugly on the outer contour of the abutment 21. In particular, the lower edge of the sleeve section 30 acts as a clamping wedge
30 between the abutment 21 and the impression cap 4. The cap shoulder 41 sits practically seamlessly on the implant



shoulder 11 and with resilient tensioning, the snap element 42 gripping the implant shoulder 11 in a downward direction, towards the implant head 10, and as it were pulling the impression cap 4 onto the implant 1.

5

Figures 2A to 2E

This sequence of figures refers to the production of the master cast after the impression of the mouth situation has been obtained. The above-described slide sleeve 3 and
10 impression cap 4, which remain embedded in the impression, are present once again. A manipulation implant 5, here with a solid conical abutment 51, and a manipulation shoulder sleeve 6 are added in this work phase.

15 The manipulation implant 5 has, at the bottom, a continuation 50 and, at the top, an abutment 51 identical to the abutment 21. Above the continuation 50 with a plurality of retention plates 52, the manipulation implant 5 has a fixing plate 53 with a plate shoulder 54.

20

The cylindrical, hollow manipulation shoulder sleeve 6 has, at the bottom, a radially encircling, elastic locking edge 60 curved inwards. At the top, the manipulation shoulder sleeve 6 terminates via a manipulation shoulder 61 identical
25 to the implant shoulder 11. In the manipulation shoulder sleeve 6 there are expansion slots 62 extending to the locking edge 60 for the purpose of increasing the elasticity. In the assembled state, the manipulation shoulder sleeve 6 is pushed so far onto the manipulation
30 implant 5 that the locking edge 60 engages around the fixing plate 53, while the snap element 42 of the impression cap 4



engages elastically around the manipulation shoulder 61. The slide sleeve 3 again clamps wedge-like in the impression cap 4.

5 Figures 3A and 3B

In a modification to the sequence of Figures 1A to 1G, instead of the solid conical superstructure 2, a conical superstructure 102 having an internal thread 123 is shown here. The threaded part 120 engages in the internal threaded
10 bore 12 of the implant 1. The conical abutment 121 with the grooves 122 and, for example, a conicity of 6° has another outer geometry; an adapted slide sleeve 103 with an inner contour 132 complementary to the abutment 121 is accordingly provided. At the very bottom, the sleeve section 130 has an
15 inner contour of 6° conicity; which then merges into an 8° conicity.

In the assembled state the snap element 42 again engages around the implant shoulder 11, and the lower edge of the
20 sleeve section 130 pushes and clamps itself in the manner of a wedge between the abutment 121 and the impression cap 4. The end-piece 131 of the slide sleeve 103 projects upwards from the impression cap 4. The manipulation implant to be used here would have to have an abutment identical to the
25 abutment 121.

Figure 3C

A once again modified conical superstructure 202 is used; it has, for example, a conicity of 8° on the abutment 221. With
30 the two stepped conicities of 6° and 8° in the sleeve section 130, the slide sleeve 103 can also be used here.



Figures 4A to 4D

A polygonal superstructure 302 is now screwed with its threaded part 320 into the internal threaded bore 12 of the implant 1. The polygonal abutment 321, here with an outer octagon, projects above the implant shoulder 11, while the horizontal abutment shoulder 324 radially surrounding the abutment 321 ends approximately flush, depending on tolerances, with the top edge of the implant shoulder 11. An internal threaded bore 323 in the form of a blind hole extends axially into the polygonal superstructure 302. A slide sleeve 303 is provided with an inner contour 332 matching the abutment 321 on the sleeve section 330.

In the assembled state, the lower edge of the sleeve section 330 sits on the abutment shoulder 324 and the end-piece 331 again projects from the impression cap 4 at the top. The snap element 42 of the impression cap 4 engages around the implant shoulder 11.

Figures 5A to 5H

This sequence of figures outlines the work steps involved from the impression-taking, using the example of a solid conical superstructure 2, to the finished master cast. The mouth situation (Fig. 5A) is shown with an implant 1 sitting in the jaw bone and a solid conical superstructure 2 screwed into the implant 1. In order to take an impression, the slide sleeve 3 is first of all pushed onto the solid conical superstructure 2 (Fig. 5B). In a further step, the impression cap 4 is pushed on (Fig. 5C). The sequence of pushing on the slide sleeve 3 and the impression cap 4 could



also take place in the reverse order. The impression tray 70 filled with impression compound 7 is now pressed onto the implant 1 thus equipped in the direction of the jaw bone (Fig. 5D). After withdrawing the impression tray 70, the
5 impression cap 4 and the slide sleeve 3 remain embedded in the impression compound 7, and the impression AD is obtained (Fig. 5E).

An analogous manipulation implant 5 is now pushed via its
10 conical abutment 51 into the slide sleeve 3 as far as the limit stop (Fig. 5F). Finally, the manipulation shoulder sleeve 6 is pushed over the retention plates 52 of the manipulation implant 5 until its manipulation shoulder 61 is held by the snap element 42, with the locking edge 60
15 striking the plate shoulder 54 (Fig. 5G). Modelling compound 71 is lastly poured onto the impression AD and the master cast MM is obtained (Fig. 5H). It is also conceivable to insert the manipulation shoulder sleeve 6 before the manipulation implant 5.

20

Figures 6A to 6H

This sequence of figures outlines the work steps taking the example of an angled conical superstructure 402 with an internal thread 423, where the threaded part 420 is screwed
25 into the internal threaded bore 12 in the implant 1; this is the mouth situation (Fig. 6A). An impression cylinder 8 is screwed into the internal thread 423 (Fig. 6B) and a laterally open impression cap 4 is pushed onto the latter and grabs the implant shoulder 11 (Fig. 6C). The impression
30 AD is taken using the impression tray 70 filled with impression compound 7 (Fig. 6D), which impression is



obtained after withdrawing the impression tray 70, and in which the impression cap 4 and a hollow space according to the impression cylinder 8 and the conical superstructure 402 remain behind (Fig. 6E). In the next step, the impression
5 cylinder 8 is pushed into its hollow space and the manipulation shoulder sleeve 6 is attached (Fig. 6F) and modelling compound 71 is then filled in through the manipulation shoulder sleeve 6, so that the whole hollow space is filled up (Fig. 6G). Modelling compound 71 is now poured
10 onto the impression AD and, after removing the impression tray 70 in which the impression cylinder 8 remains, the finished master cast MM is obtained (Fig. 6H).

Further constructional variations can be made to the
15 impression system described above. The following are mentioned expressly here:

- The slide sleeve 3 can be omitted entirely if the hollow space remaining in the impression cap 4, and left by the
20 selected abutment, e.g. 21, inside the impression cap 4, is filled with impression compound. The impression compound could be introduced through the apertures 44.
- From the point of view of production engineering, it may
25 be advantageous for the slide sleeve 3 and the impression cap 4 to be combined and designed as one piece.
- It is feasible for the manipulation implant 5 and the
30 manipulation shoulder sleeve 6 to be combined and designed as one piece.



- The list of abutments 21, 131, 221, 321, 421 set out hitherto in the description is not by any means exhaustive. Other abutment forms besides these ones are also considered to be included.

5

- Like the impression cap 4, the manipulation shoulder sleeve 6 can have, on the outer circumference, retention plates generated by radial grooving and/or radially directed apertures.

10

- The manipulation implant 5 and/or the manipulation shoulder sleeve 6 can be omitted entirely if the hollow space remaining in the impression AD is filled with modelling material.

15

- The inventive concept can be generalized to the extent that the snap elements 42 provided on the impression cap 4 can generally have an engagement geometry engaging in the undercut contour present on the outer side of the implant end directed outwards. The contour can be created by a trumpet shape of the implant end or by an incorporated undercut.

20

E



The claims defining the invention are as follows:

1. Impression system with an impression cap for transferring an internal geometrical profile of a patient's mouth formed by an outwardly directed end of a dental implant and a human tissue structure surrounding said implant end, to a master cast, the implant is fitted into a human jawbone and the implant end is protruding from said human tissue structure, where

- a) the implant end has an undercut contour on its outside, characterized in that
- b) the impression cap has a geometry which complements the undercut contour and engages therein.

2. Impression system according to claim 1, characterized in that from the end of the dental implant projects a superstructure.

3. Impression system according to claim 1 or claim 2, characterized in that the undercut contour is formed either by an implant geometry tapering in a trumpet shape towards an implant bed, or by a recess near the implant end.

4. Impression system according to any one of claims 1 to 3, characterized in that the engaging geometry provided on the impression cap is a snap element in the form of a circular lip, or it is formed by individual gripping members.

5. Impression system according to claim 3, characterized in that the implant end is trumpet-shaped with an area of greatest diameter having an angled shoulder portion forming an implant shoulder, and a cap shoulder provided on the impression cap is supported at least partially on the implant shoulder.

6. Impression system according to claim 1, characterized in that, on the outer circumference, the impression cap has retention plates generated by radial grooving and/or radially directed apertures.

7. Impression system according to claim 1, characterized in that the impression cap is closed on one side.



8. Impression system according to claim 1, characterized in that the impression cap has an axial channel passage.

9. Impression system according to claim 8, characterized in that the channel passage of the impression cap remains free.

10. Impression system according to claim 9, characterized in that the channel passage of the impression cap is fitted with an abutment and a slide sleeve.

11. Impression system according to claim 10, characterized in that the slide sleeve has an inner contour complementing the abutment, and at least the lower edge of a sleeve section of the slide sleeve sits between the abutment and the inner wall of the impression cap resting on an implant shoulder.

12. Impression system according to claim 1, characterized in that prefabricated parts are provided for transferring an impression obtained from the internal geometric profile of the patient's mouth to the master cast.

13. Impression system according to claim 5, characterized in that the implant shoulder is embodied by a manipulation shoulder sleeve with an upper manipulation shoulder and with a holding mechanism, and the manipulation shoulder is gripped by a snap element of the impression cap.

14. Impression system according to claim 13, characterized in that the holding mechanism has the form of a locking edge.

15. Impression system according to claim 1, characterized in that an abutment of a manipulation implant is provided for transferring an impression obtained from the internal geometric profile of the patient's mouth to the master cast, which abutment is insertable into the impression cap and a slide sleeve remaining in the impression obtained, which abutment, in terms of its outer contour, is identical in



shape to the abutment actually used in respect of the internal geometric profile of the patient's mouth.

16. Impression system according to claim 15, characterized in that underneath the abutment, the manipulation implant is provided with a continuation having retention plates and a fixing member complementing the holding mechanism.

17. Impression system according to claim 16, characterized in that the holding mechanism of the manipulation shoulder sleeve cooperates with the fixing member of the manipulation implant.

18. Impression systems substantially as hereinbefore described with reference to the accompanying drawings.

DATED this 25th day of May 1999

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Abstract

The impression system comprises an impression cap (4) for transferring an end, protruding from a human tissue structure, of an implant (1) which is fitted in the human
5 body, including possible superstructures, to a master cast. The outwardly directed implant end has an undercut contour on its outside, and the impression cap (4) has a geometry which complements the undercut contour and engages therein. The undercut contour is formed either by an implant geometry
10 tapering in a trumpet shape towards the implant bed, or by a recess near the implant end. Taking an impression and producing a master cast are greatly simplified with the impression system. In addition, the actual geometrical situation on the patient can be transferred to the master
15 cast with greater precision.

(Fig. 1D)

